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## WHAT IS CLAIMED IS:

1. A media stream system which processes plural media streams, each media stream comprising packets of media information, the system comprising:

plural processors, each of the plural processors executing at least one of plural types of media stream processing functions;

a switch function which routes the packets of the plural media streams to a sequence of the plural processors whereby the plural types of media stream processing functions are sequentially performed relative to the packets;

wherein a packet size for the packets is chosen to minimize overhead load on at least one of the plural processors without causing undue delay for a packet awaiting processing by the at least one of the plural processors.

- 2. The system of claim 1, wherein the packet size for a packet of media information is chosen to be 160 octets.
- 3. The system of claim 1, wherein consecutive packets of a same media stream being separated by a packet repetition interval.
- 4. The system of claim 3, wherein the packet repetition interval between consecutive packets of the same media stream is 20 milliseconds.
  - 5. The system of claim 1, wherein the number of plural media streams is nine.
- 6. The system of claim 1, wherein the plural media streams are one of plural voice channels and plural video channels.
- 7. The system of claim 1, wherein the switch asynchronously routes the packets of the plural media streams to a sequence of the plural processors.
- 8. The system of claim 7, wherein for at least one of the plural processors there is a queue for temporarily storing a packet received while the at least one of the plural processors performs its media stream processing function relative to another packet.

- 9. The system of claim 1, wherein at least one of the plural processors is a digital signal processor (DSP).
  - 10. The system of claim 1, wherein the plural types of media stream processing functions include at least one of the following: speech coding; speech decoding; echo cancellation; tone sender; tone receiver; DTMF sender; DTMF receiver; conference call device (CCD); announcement machine; FAX modem; voice recogition; and U-lag/A-lag conversion; an interfacing functionality to an external network (such as TDM, ATM, IP and Frame Relay networks); video codec, text processing, modem for either circuit switched or packet switched data.
  - 11. The system of claim 1, wherein the overhead load includes operations of resuming and suspending execution of a media stream processing function for packets of different media streams.
  - 12. The system of claim 1, further comprising an interface device which connects the system to a network wherein the packets of the plural media streams are transmitted synchronously, wherein the interface device performs a synchronization with respect to the packets which have been asynchronously routed through the system.
  - 13. The system of claim 1, wherein the switch function comprises one of a packet switch and a cell switch.
- 14. The system of claim 1, wherein the switch function comprises one of a packet-based and a cell-based network.
- 15. A method of handling plural media streams, each media stream comprising packets of media information, the method comprising:

executing plural types of media stream processing functions at plural processors;

routing the packets of the plural media streams to a sequence of the plural processors whereby the plural types of media stream processing functions are sequentially performed relative to the packets;

choosing a packet size for the packets to minimize overhead load on at least one of the plural processors without causing undue delay for a packet awaiting processing by the at least one of the plural processors.

- 1 16. The method of claim 15, further comprising choosing the packet size for a packet of media information to be 160 octets.
- 1 17. The method of claim 15, further comprising separating consecutive packets 2 of a same media stream by a packet repetition interval.
- 1 18. The method of claim 15, further comprising choosing the packet repetition interval between consecutive packets of the same media stream to be 20 milliseconds.
- 1 19. The method of claim 15, wherein the number of plural media streams is 2 nine.
  - 20. The method of claim 15, wherein the plural media streams are one of plural voice channels and plural video channels.
  - 21. The method of claim 15, further comprising asynchronously routing the packets of the plural media streams to a sequence of the plural processors.
  - 22. The method of claim 21, further comprising, for the at least one of the plural processors, providing a queue for temporarily storing a packet received while the at least one of the plural processors performs its media stream processing function relative to another packet.
  - 23. The method of claim 15, further comprising including at least one of the following as one of the plural types of media stream processing functions: speech coding; speech decoding; echo cancellation; tone sender; tone receiver; DTMF sender; DTMF receiver; conference call device (CCD); announcement machine; FAX modem; voice recogition; and U-lag/A-lag conversion; an interfacing functionality to an external network (such as TDM, ATM, IP and Frame Relay networks); video codec, text processing, modem for either circuit switched or packet switched data.
  - 24. The method of claim 15, wherein the overhead load includes operations of resuming and suspending execution of a media stream processing function for packets of different media streams.

- 25. The method of claim 15, further comprising providing an interface device to connect the system to a network wherein the packets of the plural media streams are transmitted synchronously, and using the interface device to perform a synchronization with respect to the packets which have been asynchronously routed through the system.
- 26. The method of claim 15, wherein the step of routing the packets of the plural media streams involves employing one of a packet switch and a cell switch to route the packets.
- 27. The method of claim 15, wherein the step of routing the packets of the plural media streams involves employing one of a packet based network and a cell based network to route the packets.
- 28. A media stream system which processes plural media streams, each media stream comprising packets of media information, the system comprising:

plural processors, each of the plural processors executing at least one of plural types of media stream processing functions;

a switch function which asynchronously routes the packets of the plural media streams to a sequence of the plural processors whereby the plural types of media stream processing functions are sequentially performed relative to the packets;

wherein a packet size for the packets is chosen to be 160 octets.

- 29. The system of claim 28, wherein consecutive packets of a same media stream are separated by a packet repetition interval.
- 30. The system of claim 29, wherein the packet repetition interval between consecutive packets of the same media stream is 20 milliseconds.
  - 31. The system of claim 28, wherein the number of plural media streams is nine.
- 32. The system of claim 28, wherein the plural media streams are one of plural voice channels and plural video channels.
  - 33. The system of claim 28, wherein for at least one of the plural processors there is a queue for temporarily storing a packet received while the at least one of the

- plural processors performs its media stream processing function relative to another
  packet.
- 34. The system of claim 28, wherein at least one of the plural processors is a digital signal processor (DSP).
  - 35: The system of claim 28, wherein the plural types of media stream processing functions include at least one of the following: speech coding; speech decoding; echo cancellation; tone sender; tone receiver; DTMF sender; DTMF receiver; conference call device (CCD); announcement machine; FAX modem; voice recogition; and U-lag/A-lag conversion; an interfacing functionality to an external network (such as TDM, ATM, IP and Frame Relay networks); video codec, text processing, modem for either circuit switched or packet switched data.
  - 36. The system of claim 28, further comprising an interface device which connects the system to a network wherein the packets of the plural media streams are transmitted synchronously, wherein the interface device performs a synchronization with respect to the packets which have been asynchronously routed through the system.
  - 37. The system of claim 28, wherein the switch function comprises one of a packet switch and a cell switch.
- 38. The system of claim 28, wherein the switch function comprises one of a packet-based and a cell-based network.

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